



IoT – A Look into the South African Context

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IoT Continues to Evolve

M2M-age

IoT Today

Next Chapter of IoT

Devices/Endpoints

- Disparate endpoint devices
- Individually managed (onboarding, operation)
- Basic sensors / minimal intelligence

- Competing, growing ecosystem of devices
- Increasing sensors, some endpoint processing

- Standards become rationalized
- Management standardization
- Integration (more devices, increased functionality)

Edge

- Minimal edge processing
- Point solutions
- Data collection and distribution

- Growing interest in enabling processing/compute at the Edge
- Supply-based phenomenon
- Edge-based compute capabilities emerging

- More than 50% of processing happening at the Edge
- Solutions enabled at the microprocessor

Core

- Cloud plays only opportunistic role
- Prem-based, bespoke solutions are mainstream

- Cloud is the critical enabler of most successful IoT deployments
- Public cloud vendors beginning to own IoT middleware landscape

- Core used for heavy compute analytics
- Public cloud winners – Microsoft and AWS
- Some industries still reticent to use public cloud

Analytics

- Descriptive

- Predictive

- Prescriptive

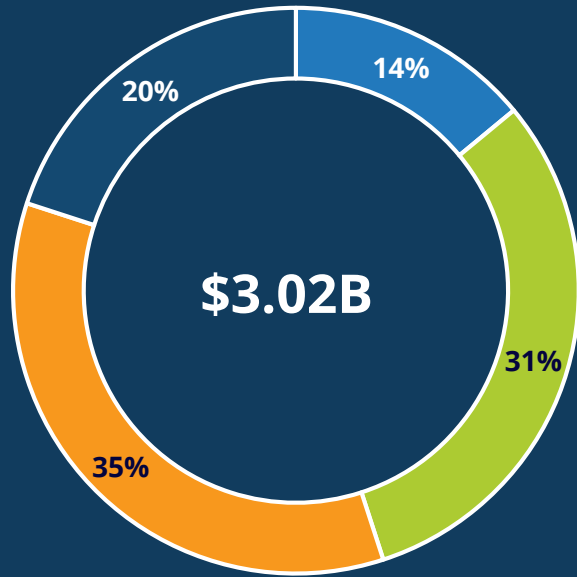
Industry Trends

- Manufacturing
- Utilities
- Transportation

- Previous industries
- Adoption happening in buildings and consumer

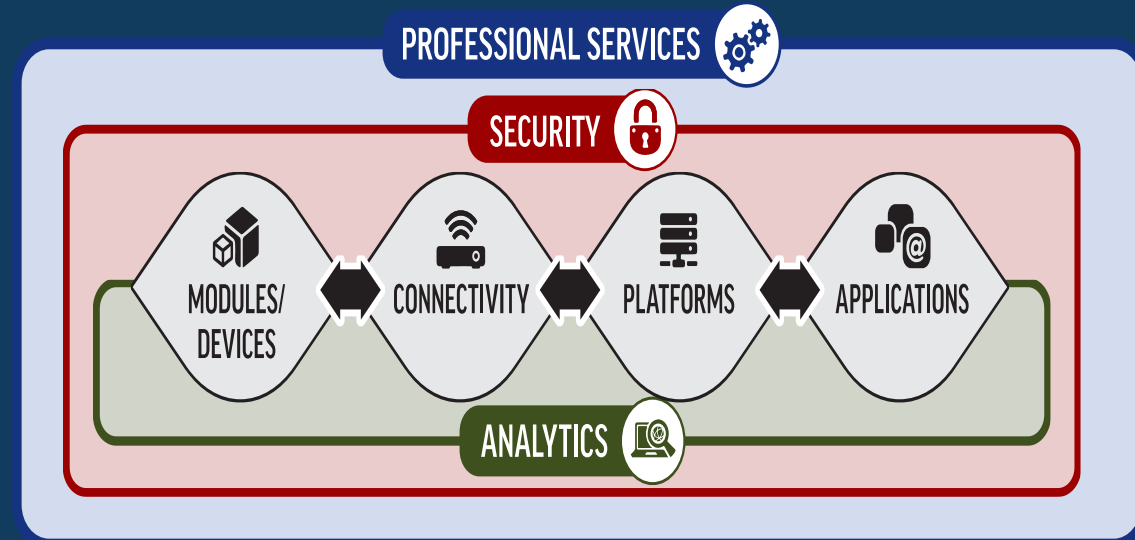
- Cross industry data sharing/exchange (i.e. smart cities)

South African Spending across the IoT Technology Value Chain will Grow



CAGR 2018 - 2023

Connectivity	↑	15.7% CAGR
Hardware	↑	13.2% CAGR
Services	↑	15.5% CAGR
Software	↑	17.9% CAGR



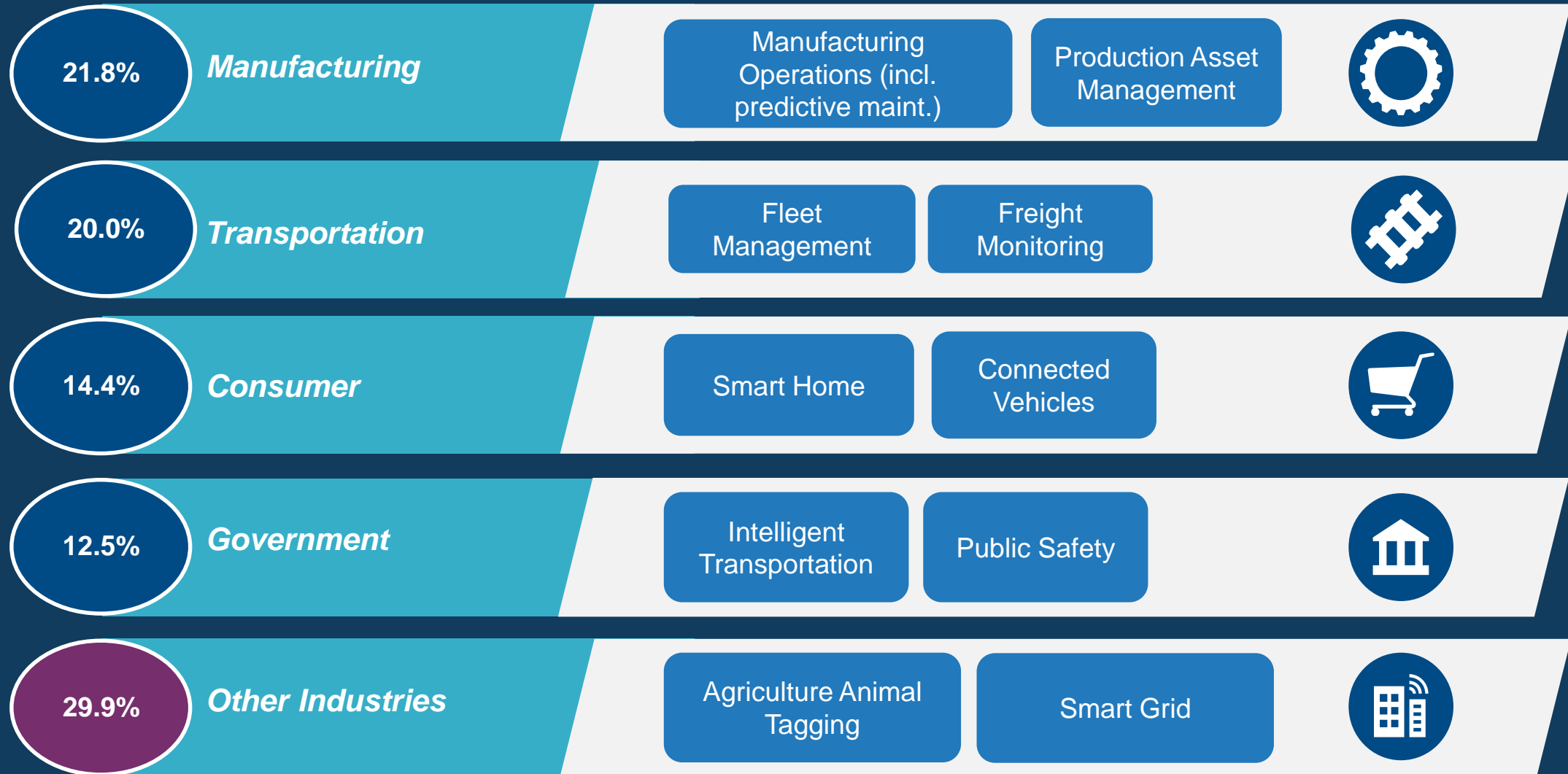
Customer value discussion shifts towards software platforms, applications, and analytics – driven in part low access to skills

Processing at the Edge grows; Growth of the Intelligent Edge – gateways to aggregate and analyze edge data, edge-AI

However, the role of access (network / connectivity) cannot be underestimated; Licensed and unlicensed LP-WAN technologies will co-exist

Security concerns across OT and IT will grow and hamper adoption

Top Verticals and Use Cases for IoT in South Africa (2023)



The Risks of a “Me Too” approach

While some use-cases will be relevant to more developed regions based on specific circumstances...

...However, Africa’s IoT journey may require a different approach & starting point per region depending on local situation



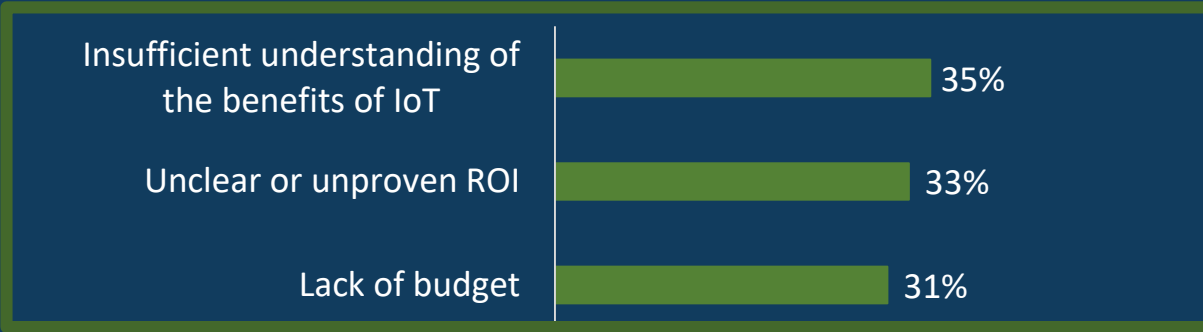
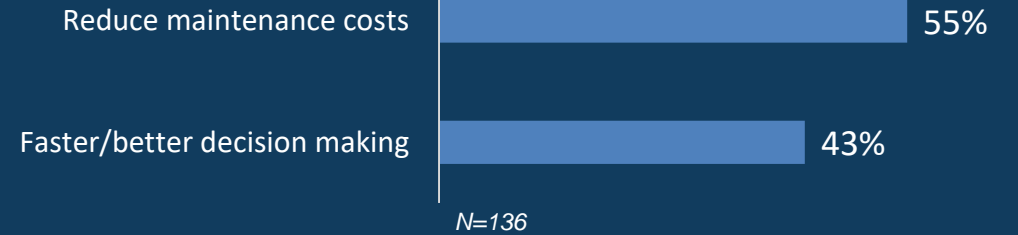
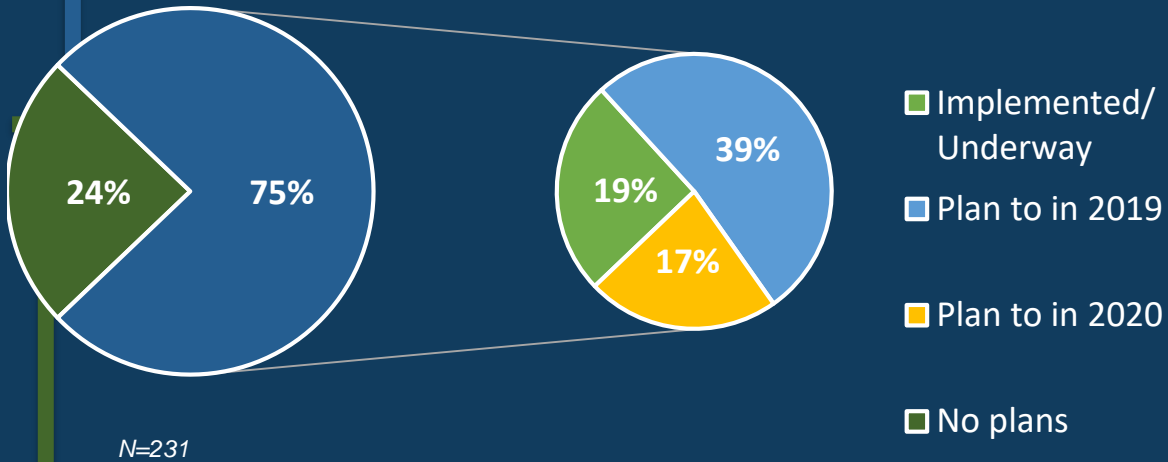
Different
Realities
&
Priorities



CIO Sentiments – Lots of Enthusiasm, Confusion

Adoption drivers

IoT Adoption Intentions



IoT as the Nerve Center of Everything

80 billion
Devices

will be online worldwide by 2025, creating 180ZB of data and 250,000 unique IoT Apps/Services already by 2020

By 2022,
50% of the initial
analysis of IoT data
will occur at the Edge

By 2020, 70% of organizations will leverage commercial IoT platforms to develop and deploy IoT applications, and more than 50% will have multivendor IoT platform environments.

By 2020, over 30% of IoT initiatives worldwide will fail to demonstrate a clear ROI, with organizations lacking the necessary KPIs to monitor progress from the early stages of such projects.

IDC IoT Market Glance

HARDWARE

Embedded Suppliers	IoT Modules	IoT Gateways	Servers	Storage

SOFTWARE

IoT Platforms		Security	Analytics	Embedded Software
Application Enablement Platforms 	Connectivity Management Platforms 			

SERVICES

Communications Service Providers	Systems Integrators

STANDARDS

Connectivity Protocols	Standards Organizations

INDUSTRY SOLUTIONS

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THANK YOU!